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(54) **Ventilative bedding**

(57) The present invention relates to a ventilative bedding comprising a plurality of metal tubes (22) vertically positioned, a plurality of porcelain pieces (21) each fixed onto the top of a metal tube, a plurality of wire coils (23), and a wire case (12) with the provision of a plurality of rings (26) at the upper layer, each ring (26) surrounding a metal tube (22) to keep them from making a horizontal movement. The porcelain pieces (21) form a cool surface, and further the porcelain pieces movable with the metal tubes (22) upward and downward combine with the wire case (12) to constitute a penetrable space, thus bringing about a ventilative effect.

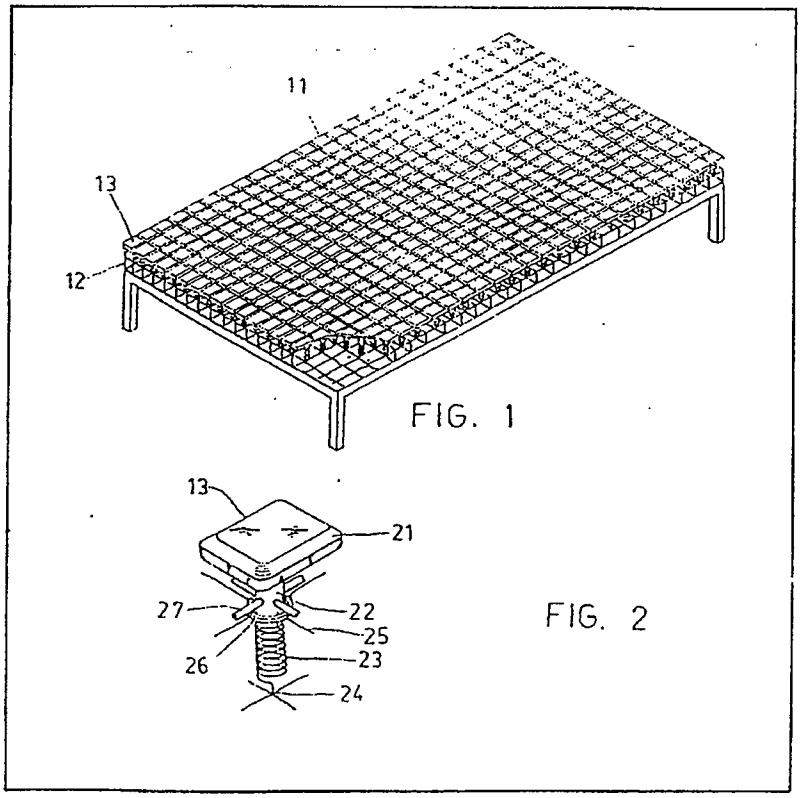

FIG. 1

FIG. 2

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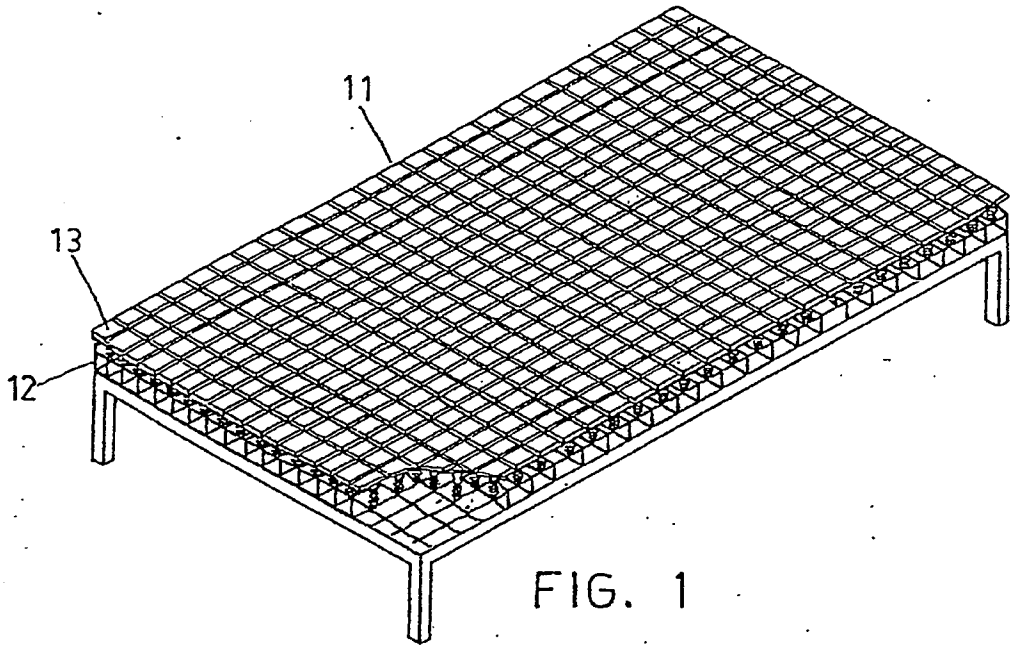

FIG. 1

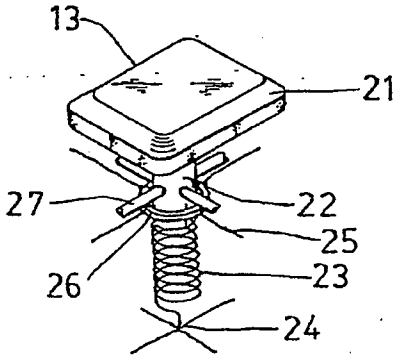

FIG. 2

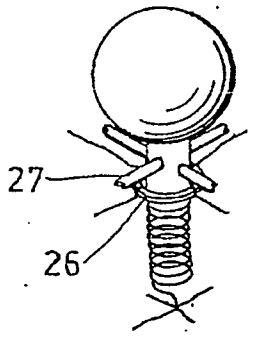

FIG. 3

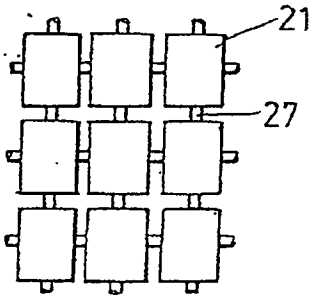

FIG. 4

SPECIFICATION

Ventilative bedding

This invention relates to ventilative bedding.

The conventional spring bed is quilted with soft material such as feathers, down, foam rubber, etc. between the wire case and heavy cloth. In addition to comfort, warmth is what the conventional spring bed provides. It can not function further, however, to bring about coolness in summer. That is why bamboo mat, rattan couch, and marble bed come into market. The bedding made of these materials has a drawback, that is, the surface thereof is too hard. The disadvantages mentioned above are also included in the conventional pillow and pad.

The ventilative bedding according to the present invention comprises a wire case, a plurality of rings at the upper layer of the wire case, a plurality of vertical metal tubes each surrounded by a ring to prevent the former from making a horizontal movement, a plurality of porcelain pieces each fixed onto the top of a metal tube, and a plurality of wire coils mounted on the lower layer of the wire case and connected respectively with the lower end of the metal tubes, wherein all the porcelain pieces form a cool surface and furthermore, the porcelain pieces movable with metal tubes upward and downward combine with the wire case to constitute a penetrable space, thus bringing about a ventilative effect.

Advantageously each metal tube is provided with crossed checking bar which will be blocked at its corresponding ring mounted on the upper layer of the wire case so as to stop a further downward movement of the metal tube and prevent wire coils from breaking down and porcelain pieces from collision with the upper layer of the wire case when a pressure is exerted thereupon.

Advantageously the ventilative bedding is covered by thin cloth so that the hair or skin of the sleeper may not be squeezed; or covered by heavy cloth to make the ventilative bedding according to the present invention still available in cold days.

A ventilative bedding according to the present invention affords coolness without the absence of comfort.

The invention will be further described with reference to the accompanying drawings, the description being given by way of example only, not by way of limitation.

In the Drawings:

Fig. 1 is a perspective view of an embodiment according to the present invention, with the upper corner portion taken away to make the inside structure thereof clearer;

Fig. 2 is a perspective view of a unit member of an embodiment according to the present invention, which comprises a porcelain piece, a crossed checking bar, a metal tube, and a wire coil surrounded by a ring;

Fig. 3 is a perspective view of a unit member of an embodiment according to the present invention, which shows another embodiment of the porcelain piece; and

Fig. 4 is a top view of an embodiment according to the present invention.

Referring to Fig. 1, a ventilative bedding according to the present invention comprises a plurality of unit members 13. As shown in Fig. 2, the unit member comprises a flat porcelain piece 21, a metal tube 22, a crossed bar 27 and a wire coil 23. The porcelain piece 21 is fixed onto the top of the metal tube 22. The shape of the porcelain piece 21 may be either flat as shown in Fig. 2 or round as shown in Fig. 3. The wire coil 23 is attached with one end to the lower end of the metal tube 22 and secured with the other end onto the bottom layer 24 of the wire case 12. Still as shown, the crossed checking bar 27 is provided horizontally at the upper portion of the metal tube 22. The wire case 12 is framed by a plurality of crossed wires 24. At the bottom layer of the wire case 12, each wire coil 23 is positioned vertically at the intersection. Each intersection at the upper layer of the wire case 12 comprises a ring 26 which is fastened by the crossed wires 24. It is clear then that porcelain pieces 21, metal tubes 22, rings 26, wire coils 23, and intersections of the crossed wires 24 according to the present invention equal to one another where the sum is concerned. The rings 26 function to prevent the vertical unit member 13 from moving horizontally. Crossed checking bars 27 combine with rings 26 to set a limitation to the distance for metal tubes 22 to move upward and downward, so as to prevent porcelain pieces 21 from collision with the upper layer of the wire case 12 and the wire coil 23 from breaking down. In other words, the unit members 13 can only move upward and downward in a limited distance within the space permitted by the rings 26. The porcelain pieces 21 together offer a flat elastic surface. With the provision of the crossed checking bar 27, the wire coil will have a longer duration. Another embodiment of the ventilative bedding 11 is additionally covered by cloth 14 (not shown). Whether thick or thin of the cloth 14 depends on the necessity.

Fig. 4 shows a top view of an embodiment of the present invention. The coolness of the surface offered by the porcelain heads 21 and the ventilative effect by the construction of the ventilative bedding are main features adding to the spring effect also owned by the present invention. Besides, the present invention attains the same effect as does the conventional one in the cold days by an additional provision of the heavy cloth.

The porcelain piece is not necessary to be restricted to being either round or flat. Any propriate shape thereof still falls within the substantive features of the present invention. Furthermore, any material such as glass fiber, marble piece or pottery which may bring about the same effect may be used to replace the material of the porcelain piece.

CLAIMS

1. A ventilative bedding comprising
a wire case framed by crossed wires,
a plurality of rings at the upper layer of said wire case, each ring fastened by crossed wires,
a plurality of metal tubes vertically positioned, each metal tube being surrounded by one said ring,
a plurality of porcelain pieces each fixed onto the top of one said metal tube, and
a plurality of wire coils attached onto the lower ends of said metal tubes, each wire coil being secured onto the bottom layer of said wire case at the inter-section thereof, wherein said porcelain pieces form a cool surface, and furthermore said porcelain pieces movable with said metal tubes upward and downward combine with said wire case to create a ventilative effect.

2. A ventilative bedding as claimed in Claim 1 wherein provided at the upper portion of each said metal tube is a crossed checking bar which will be blocked at the upper layer of the wire case by said ring to prevent said wire coils from breaking down and said porcelain pieces from collision with the upper layer of said wire case.

3. A ventilative bed comprising a wire frame, an upper surface formed by a plurality of discrete members made of a material such as to provide a relatively cool upper surface.
respective resilient means for resiliently supporting each said member and enabling vertical movement of said members for creating a ventilating effect, and means for retaining each said member in spaced relationship with each adjacent said member.

4. A ventilative bed as claimed in Claim 4 further comprising means for limiting vertical movement of each said member.

5. A ventilative bedding constructed and arranged substantially as hereinbefore described with reference to the accompanying drawings.

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TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT (Under 37 CFR 1.97(b) or 1.97(c))	Docket No. 14827

In Re Application Of: TIMOTHY P. COFFIELD ET AL.

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
11/112,345	APRIL 22, 2005	UNKNOWN	27889	3683	5227

Title: LOAD BEARING SURFACE

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37 CFR 1.97(b)

1. ☒ The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.

37 CFR 1.97(c)

2. ☐ The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:

   ☐ the statement specified in 37 CFR 1.97(e);

   OR

   ☐ the fee set forth in 37 CFR 1.17(p).

P10A/REV05

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT (Under 37 CFR 1.97(b) or 1.97(c))	Docket No. 14827

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Title: LOAD BEARING SURFACE

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